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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,185	02/12/2002	Shoji Ikeda	1115.66200	4415
7590 04/20/2004			EXAMINER	
Patrick G. Burns, Esq. GREER, BURNS & CRAIN, LTD. Suite 2500 300 South Wacker Dr. Chicago, IL 60606			SHEEHAN, JOHN P	
			ART UNIT	PAPER NUMBER
			1742	
DATE MAILED: 04/20/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/074,185	Applicant(s) IKEDA ET AL.	
	Examiner John P. Sheehan	Art Unit 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,9 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 to 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent document No. 4-163505 (Japan '505) in view of Callister (each reference having been cited on the PTO Form 892 attached to the previous Office action).

Japan '505 teaches a magnetic thin film containing Fe, nitrogen and oxygen in proportions that overlap the proportions recited in the instant claims (see the English language abstract).

Callister teaches that single crystals are difficult to grow (page 49, under the heading "3.12 Single Crystals", line 5).

The claims and the Japan '505 differ in that the Japan '505 does not teach; (1) whether the disclosed thin films are polycrystalline, (2) the exact same proportions, (3) the grain size recited in applicants' claim 2, (4) the magnetic properties recited in applicants' claim 3.

However one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious in view of Callister's teaching that single crystal materials are difficult to grow and thus appear to be the exception in crystal structure and the fact that Japan '505 is silent with respect to being single crystal it would be expected that Japan '505's thin films of would be polycrystalline. Further, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because Japan '505's thin film composition overlaps applicants' claimed thin film composition and therefore is considered to establish a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art to select any portion of the disclosed ranges including the instantly claimed ranges from the ranges disclosed in the prior art reference, particularly in view of the fact that;

"The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages", In re Peterson 65 USPQ2d 1379 (CAFC 2003).

Also, In re Geisler 43 USPQ2d 1365 (Fed. Cir. 1997); In re Woodruff, 16 USPQ2d 1934 (CCPA 1976); In re Malagari, 182 USPQ 549, 553 (CCPA 1974) and MPEP 2144.05. Finally, because the thin film composition taught by Japan '505 has a composition that overlaps the claimed thin film composition Japan '505's thin film would be expected to possess all the same properties as recited in the instant claims, In re Best, 195 USPQ, 430 and MPEP 2112.01.

"Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced

Art Unit: 1742

by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established, *In re Best*, 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.' *In re Spada*, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. *In re Best*, 195 USPQ 430, 433 (CCPA 1977)." (emphasis added by the Examiner) see MPEP2112.01.

3. Claims 4 to 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent document No. 4-163505 (Japan '505) in view of Callister as applied to claims 1 to 3 and 9 above, and further in view of Westwood (US Patent No. 6,2245,719, cited on the PTO form 892 attached to this Office action).

Each of Japan '505 and Callister teach and is applied as set forth above.

Westwood teaches the magnetic head structure recited in each of these claims (column 1, lines 33 to 43) and the use of Fe-Al-N-O thin films in the same magnetic head (column 3, lines 33 to 47).

The claims and the combination of Japan '505 and Callister differ in that this cited combination of prior art is silent with respect to the magnetic head structure recited in claims 4 to 6 and 10.

However one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the use of the Fe-M-N-O thin films disclosed by Japan '505 in the instantly claimed magnetic head structure is clearly taught by Westwood.

Response to Arguments

4. Applicant's arguments filed November 26, 2003 have been fully considered but they are not persuasive.

Applicants' argument that Japan '505's element M is totally different from that of the present invention is not persuasive. Japan '505 teaches that the element M is a Group 3A element from the Periodic Table (see Japan '505, Abstract, line 6). Group 3A of the Periodic Table includes the elements B and Al, which are encompassed by the instant claims (for example, see claim 1, line 5).

Applicants argue that Callister merely mentions that single crystals are difficult to grow and provides no information regarding the structure of the presently claimed material. The Examiner is not persuaded. It is the Examiner's position that if an alloy is not single crystal then it follows that the alloy is at least 2 crystals or more and therefore polycrystalline as recited in the instant claims. In view of Callister's teaching that single crystal materials are difficult to grow and thus single crystal materials appear to be the exception in crystal structure and the fact that Japan '505 is silent with respect to being single crystal it would be expected that Japan '505's thin films are not single crystal and therefore at least 2 crystals or more, that is, polycrystalline.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

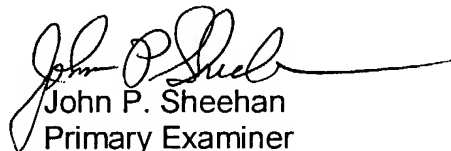
Art Unit: 1742

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (571) 272-1249. The examiner can normally be reached on T-F (6:45-4:30) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.


John P. Sheehan
Primary Examiner
Art Unit 1742

jps